

Application No. 09/831,966

- 2 -

October 27, 2004

**IN THE CLAIMS**

Amend the claims as follows:

Claims 1-39 cancelled.

40. (Original) A method of conducting an assay utilizing a device for analyzing a biologic sample, the sample having a fluid component and a non-fluid component, the device comprising a capillary chamber, at least one reagent disposed within the capillary chamber, and a dynamic capillary filter disposed in fluid communication with said chamber, comprising the steps of:

(a) conveying the fluid sample into fluid communication with the dynamic capillary filter such that the fluid component is separated from the non-fluid component and the fluid component is drawn into the capillary chamber by capillary action and reacts with the reagent, and

(b) analyzing the reagent to determine whether the reagent changes in response to an analyte in the fluid sample.

41. (Original) The method of claim 40 further comprising the step of analyzing the reagent to determine a proportion of the reagent which binds to the sample.

42. (Original) The method of claim 41 further comprising the step of determining a volume of a fluid sample which substantially fills the capillary chamber from a known volume of the capillary chamber.

43. (Original) The method of claim 40, wherein said dynamic capillary filter comprises a plurality of microspheres disposed in abutting relation and forming interstitial spaces therebetween, whereby when the microspheres are disposed in fluid communication with the biologic sample, the interstitial spaces connect to form a plurality of transiently forming capillary channels and the non-fluid component is separated from the fluid component by capillary flow of the fluid component through the transiently forming capillary channels.

44. (Original) The method of claim 43 wherein the biologic sample is blood and the fluid component is plasma.

Application No. 09/831,966

- 3 -

October 27, 2004

45. (Original) The method of claim 40 in which the reagent is disposed in a strip adhered to an interior surface of the capillary chamber.
46. (Original) The method of claim 45 in which the reagent comprises a selected antibody printed onto the interior surface of the capillary chamber.
47. (Original) The method of claim 45 in which a plurality of reagents are disposed within the capillary chamber for conducting a plurality of assays on the fluid sample.
48. (Original) The method of claim 46 in which the reagents include proteins and antibodies.
49. (Original) The method of claim 47 in which the reagents include proteins, antibodies, nucleic acids, lipids, steroids, heterocyclic compounds, drugs of abuse or any combination thereof.
50. (Original) The method of claim 40 in which a plurality of capillary chambers are provided for conducting a plurality of assays on one or more fluid samples.
51. (Currently Amended) The method of claim 40 further comprising the step of calibrating the analyzer utilizing a calibration strip imprinted on the biochip device for setting a baseline.
52. (Original) The method of claim 40 further comprising the step of associating with results of the assay patient identification information contained in an indicator affixed to the biochip.
53. (Original) The method of claim 52 in which the indicator comprises a bar code.
54. (Original) The method of claim 40 further comprising the step of recording results of the assay in a computer database.
55. (Original) The method of claim 54 further comprising the step of compiling data from a plurality of assays in the database.
56. (Original) The method of claim 54 further comprising the step of applying a trained neural network algorithm to the data to generate a profile of one or more selected disorders.

Application No. 09/831,966

- 4 -

October 27, 2004

57. (Original) The method of claim 55 further comprising the step of applying a receiver operating characteristic analysis to the data to determine a statistical significance of the data.

58. (Original) The method of claim 56 further comprising the step of applying a receiver operating characteristic analysis to the data to determine a statistical significance of the data.

59. (Original) The method of claim 40 further comprising, before the step of analyzing the reagent to determine whether the reagent binds to an analyte in the fluid sample, the step of removing the fluid sample from the capillary chamber after a desired time interval.

60. (Original) The method of claim 59 in which a wick or a capillary is brought into fluid communication with the fluid sample to remove the fluid sample from the capillary chamber.

Claims 61 to 78 cancelled.